NAME: DATE: PERIOD:

Section 1.2 Quiz (50 points)

Part I: Write the letter of the best answer on the blank next to each number(5 points each)

\_\_\_\_\_\_\_\_1. To find the speed of an object in motion, you need to measure:

1. time and direction
2. distance and direction
3. time and velocity
4. distance and time

\_\_\_\_\_\_\_\_2. When looking at a distance-time graph, a\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_line shows an interval of time where the speed is zero meters per second.

1. vertical
2. steep
3. horizontal
4. slope

\_\_\_\_\_\_\_\_3. An example of a vector is:

1. average speed
2. speed
3. velocity
4. moment to moment speed

\_\_\_\_\_\_\_\_4. The way in which one quantity changes compared to another quantity is called a:

1. distance
2. rate
3. instantaneous speed
4. position

\_\_\_\_\_\_\_\_5. Speed can be given in:

1. meters per second
2. miles per hour
3. kilometers per hour
4. all of the above

Part II. Use the provided formulas to complete the calculations below. Be sure to show all work and to include units throughout all of the steps to the problem. (5 points each)

6. Mr. Martinelli rides his scooter across the front of the science classroom and travels a distance of 8 meters. He performs this demonstration three times and had the following times: 9 seconds, 11 seconds, and 13 seconds. What is his average speed? (round to the nearest tenth)

Average speed= total distance/total time

Average speed= (8 m x 3 trials)/ (9s + 11s + 13 s)

Average speed= 24 m/33 s

Average speed= .7 m/s

7. How long should a car take to travel 500m at a speed of 25m/s?

t=d/s

t=500m/25m/s

t=20s

8. How far will a bus travel in 100 seconds at a speed of 15m/s?

d=(S)(t)

d=(15m/s)(100s)

d=1,500m

9. Calculate the speed of a car that travels 600m in 60 seconds.

S= d/t

S= 600m/60s

S=10m/s

10. How far will a person travel in 300 seconds at a speed of 2m/s?

d=(S)(t)

d=(2m/s)(300s)

d=600m